

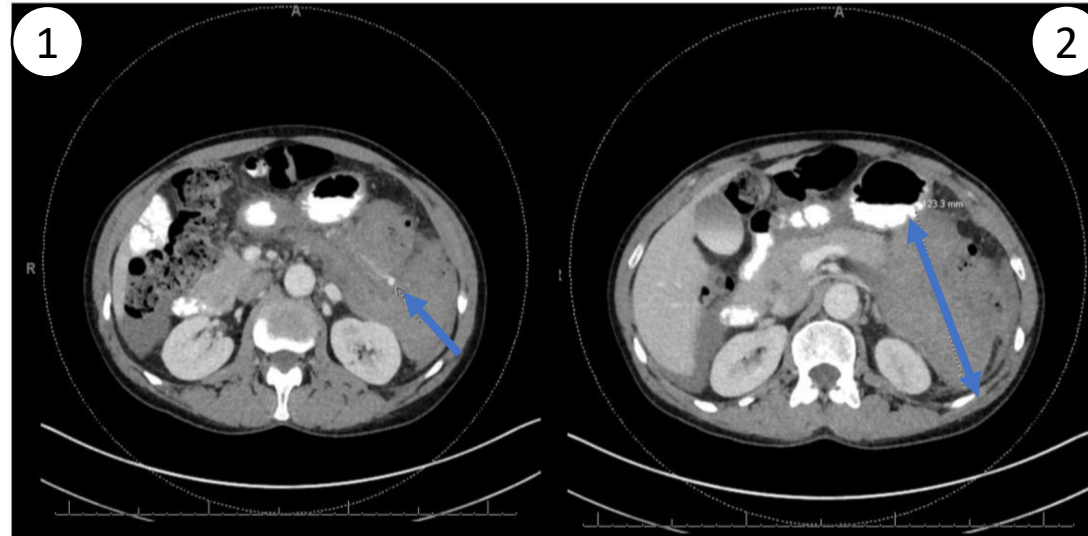
## Introduction

- Segmental arterial mediolysis (SAM) is a nonatherosclerotic, noninflammatory disruption of the arterial medial layer of a medium-to large-sized artery.
- We describe a case of a healthy woman with acute onset abdominal pain subsequently found to have spontaneous peritoneal hemorrhage from SAM.

## Case Presentation

A 52-year-old former professional female athlete developed abrupt onset lower abdominal pain with nausea and vomiting. Pain was 10/10 in severity with a sharp and crampy quality. She denied fevers, diarrhea, melena, bloody stool, ill contacts, recent travel, or prior episodes. Past medical history was significant for endometrial polyp, menopause, and iron deficiency. Family history notable for colon cancer in her father and ovarian cancer in her mother. Her abdomen was soft with tenderness in the lower quadrants with the remainder of the exam unremarkable. Labs including CBC, BMP, LFT, lipase, beta hCG, troponin, ESR, CRP, serum acetone, urinalysis, and lactic acid were reassuring. CT abdomen and pelvis with and without contrast demonstrated hyper-enhancing hepatic lesions suggestive of hemangiomas. Ultrasound of the pelvis with duplex was normal with arterial and venous duplex waveforms to both ovaries.

## CT scan images



## Discussion

- Vascular causes of abdominal pain such as segmental arterial mediolysis are uncommon.
- Awareness of noninflammatory and nonatherosclerotic artery diseases such as SAM need to be recognized since they can be fatal if not treated promptly.

## Case Presentation

On the second day of hospitalization, she had another episode of abdominal pain with labs demonstrating a hemoglobin drop from 13.7 g/dL to 10.2 g/dL. Repeat CT abdomen pelvis with contrast demonstrated large volume hemorrhagic ascites up to 16 cm in size with concerns for active hemorrhage in the left upper quadrant. Diagnostic angiography was performed by interventional radiology which did not show active arterial hemorrhage although demonstrated fusiform dilatation of the distal middle colic artery and short segment focal fusiform dilatation of the left colic artery at the splenic flexure suggestive of SAM. She subsequently underwent diagnostic laparoscopy and evacuation of hemoperitoneum with over 1L of unclotted blood evacuated with a mesenteric hematoma noted in the distal transverse and proximal descending mesocolon. The spontaneous peritoneal hemorrhage was thought to be secondary to underlying arterial abnormalities triggered by minor trauma.

## Figures

Figure 1 demonstrates a bleeding artery (arrow) as seen on CT abdomen and pelvis with intravenous contrast.

Figure 2 demonstrates the large hemoperitoneum (double arrow) in the left upper quadrant seen on CT abdomen and pelvis.

